

Appl. No. 10/604,664
Amdt. dated July 18, 2006
Supplement to Response C in reply to Office Action dated April 18, 2006

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Amendments to the Specification

Please amend the specification at page 9 and insert new paragraph [0028A], as indicated below, between existing paragraphs [0028] and [0029]. This language corresponds to original claim 13, and provides support for amended claim 1, submitted on June 21, 2006 with Response C.

[0028A] According to the present invention, a process for producing a composite membrane comprises preparing a heterogeneous coating solution (dope) containing 8-55% by weight of hydrophobic polymers and 1-50% by weight of hydrophilic polymers, 1-50% by weight of polymer particles as additives, 1-30% by weight of other organic and inorganic additives, and the remaining solvent to make a total percentage of 100, coating a support with a viscous liquid, which is selected from the group consisting of said dope, epoxy, polyurethane, silicone, and any other adhesive, to cover the rough surface and defects of said support and to provide a smooth surface and binding for a second coating, coating said support again with either the same solution used for the first coating or a different polymer coating solution, coagulating said polymer coating layers on top of said support to form a defect free composite membrane in a coagulation bath equipped with an ultrasonic device, which generates ultrasonic vibration to enhance mass transfer and to speed up phase inversion from liquid to solid phase of said coating layers, removing said solvents and water soluble additives from said coagulated membrane in a leaching bath equipped with an ultrasonic device to enhance mass transfer, collecting said composite membrane at a speed of 5 to 600 feet per minute with a take-up wheel immersed in a water bath equipped with an ultrasonic device to remove chemical residuals from said membrane, switching to another take-up wheel when one wheel is full to continue

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collecting said membrane around clock, curing said membrane either at ambient temperature or at an elevated temperature depending on the adhesives utilized to bond said support and said membrane together, and optionally treating said composite membrane with a bleach containing 50 ppm to 120,000 ppm free chlorine at ambient or elevated temperature to increase membrane water permeability by 2 to 10 folds compared to a control membrane never exposed to a chlorine treatment.